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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,838	10/08/2003	Jianhui Hong	31715-00058	7126
24919	7590	06/10/2004	EXAMINER	
MCAFEE & TAFT TENTH FLOOR, TWO LEADERSHIP SQUARE 211 NORTH ROBINSON OKLAHOMA CITY, OK 73102			COCKS, JOSIAH C	
			ART UNIT	PAPER NUMBER
			3749	

DATE MAILED: 06/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/681,838

Applicant(s)

HONG ET AL.

Examiner

Josiah Cocks

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Receipt of applicant's amendment filed 3/24/2004 is acknowledged.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 8, 10-14, 17, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Schwartz et al.* (US # 5,813,849) (cited in IDS filed 10/8/2003) in view of *Altemark et al.* (US # 5,055,032) (cited in IDS filed 10/8/2003).

Schwartz et al. discloses in Figures 1-12 a flare pilot (26) for igniting flammable fluids from a flare stack (10) and method of igniting these fluids substantially as described in applicant's claims 1, 8, 10-14, 17, and 25 including a fuel-air mixture inlet pipe (28), a fuel-air mixture discharge nozzle (42) connected to the fuel-air mixture inlet pipe, wherein a cylindrical wind shield (40) is provided that is attached to the nozzle, and a plurality of openings in each of the opposite sides of the wind shield (see col. 4, lines 32-41). *Schwartz et al.* further includes a flame front ignition means (36), a flame detector (38), and a sound detector connected to the pipe at a remote location for detecting sound (see col. 5, lines 21-54).

Schwartz et al. possibly does not disclose a perforated flame stabilizer positioned within the wind-shield and surrounding the fuel-air nozzle.

Altemark et al. teaches a burner having a burner nozzle (20) that is surrounded by a perforated flame stabilizer/retention device (3) within an outer tube (23).

Therefore, in regard to claims 1, 8, 10-14, 17, and 25, it would be obvious to a person of ordinary skill in the art at the time the invention was made to modify the flare pilot of *Schwartz et al.* to incorporate the flame stabilizer/retention device of *Altemark et al.* as this flame retention device is desirable in providing for very favorable stable combustion and keeping noise and pollutant emissions very low (see *Altemark et al.*, col. 5, lines 24-36),

5. Claims 2, 3, 22, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Schwartz et al.* in view of *Altemark et al.* as applied to claims 1 and 17 above and further in view of *Sneed* (US # 4,128,393) (cited in IDS filed 10/8/2003).

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Schwartz et al. in view of *Altemark* teach all the limitations of claims except that the wind shield has an upstanding wall portion with downwardly oriented openings for discharging rain and wind.

Sneed teaches a wind-shielding device (5) for a burner nozzle (3) wherein the wind shielding device is arranged as an upstanding wall having a plurality of downwardly facing openings (6) (see Fig. 2).

Therefore, in regard to claims 2, 3, 22, 23, and 24 it would have been obvious to modify the wind shield of *Schwartz et al.* to incorporate the upstanding wall and openings of *Sneed* as this arrangement allows for protection of the flame formed at the nozzle from wind gusts, and allowing enough air to the nozzle to provide for proper combustion (see *Sneed*, col. 2, lines 40-53) with openings arranged such that the flow of air is diffused away from direct impingement on the flame (see *Sneed*, col. 2, lines 53-64).

Response to Arguments

6. Applicant's arguments filed 3/24/2004 have been fully considered but they are not persuasive. Applicant argues that the wind shield of *Sneed* does not function in the same manner as applicant's wind shield because the pilot flame of applicant's flame is completely shielded from wind gusts. However, the examiner notes that limitations relating to complete shielding of the flame do not appear in applicant's claims. The examiner considers that the wind shield of *Sneed* meets the limitations of applicant's claims.

Applicant also argues that the flame stabilizer/retention cone of *Altemark et al.* functions to reduce the formation of pollutants whereas applicant's flame stabilizer functions to cause the

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flame to remain stable during pressure fluctuations. However, the examiner notes that the flame retention cone/stabilization device of *Altemark* both provides for reduction of pollutants and promotes a stable flame (see *Altemark et al.*, col. 5, lines 24-36). The examiner considers that the flame stabilization device of *Altemark et al.* meets the structure and function of the flame stabilizer limitations of applicant's claims.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Josiah Cocks whose telephone number is


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(703) 305-0450. The examiner can normally be reached on weekdays from 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus, can be reached at (703) 308-1935. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

jcc
June 10, 2004


JOSIAH COCKS
PRIMARY EXAMINER
ART UNIT 3749